

Notice of Allowability

Application No.

10/787,149

Applicant(s)

ABUSCH-MAGDER ET AL.

Examiner

Jean A. Gelin

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/31/06.
2. ☒ The allowed claim(s) is/are 1-5, 6, 12-32, and 34-36 renumbered as 1-30 respectively.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

1. This is in response to the Applicant's arguments and amendments filed on October 31, 2006, in which claim 1, 12, and 15-18 have been amended, claims 6-11 have been canceled, and claims 34-37 have been added. Claims 1-5, 12-32, and 34-37 are currently pending.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Gary D Yacura on 11/21/06.

3. The application has been amended as follows: please replace claims 26 and 29 with the followings:

26. (Currently Amended) A method of determining cells for deletion as part of a network upgrade of an existing, live network, comprising:

generating actual network data for each cell of a given group of cells of the live network;

evaluating the generated data of each cell to a ratio of soft handoff legs to total active legs;

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ordering cells of the group by rank based on the evaluation, said ordering including ranking the cells in order of highest ratio of soft handoff legs to total active legs, the highest ranked cell being the cell with the highest ratio; and

deleting the highest ranked cell from the live network.

29. (Currently Amended) A method of accounting for the effects of inhomogeneity inherent in an actual network when evaluating a desired cell coverage, comprising:

taking into account one or more of terrain of the proposed network, non-uniform traffic distribution within the proposed network, potential clutter in the proposed network and site selections requirements introduced by potential real estate and zoning requirements for the proposed network;

ranking cells based on a comparison of statistics generated, for each cell, to ratio of soft handoff legs to total active legs; and

deleting the highest ranked cell.

4. The application has been amended as follow: Please canceled claim 33

Allowable Subject Matter

5. After a further search and thorough examination of the present application, and in view of the applicant's arguments and amendments, claims 1-5, 6, 12-32, and 34-36 renumbered as 1-30 respectively, are in condition for allowance.

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6. The following is an examiner's statement of reasons for allowance: Subramanian teaches removing the cell having the highest load in the group (typically cells are evaluated to select the one having the highest load).

As per claims 1-5, the Applicant teaches, inter alia, evaluating statistics of each cell based a ratio of soft handoff legs to total active legs; ordering cells of the group by rank based on the evaluation, said ordering includes ranking the cells in order of highest ratio of soft handoff legs to total active legs, the highest ranked cell being the cell with the highest ratio; and deleting the highest ranked cell from the network. These limitations, in conjunction with all limitations of the independent claim have not been disclosed taught or made obvious over the prior art of record.

As per claims 37 and 12-25, the Applicant teaches, inter alia, a second evaluating a network parameter related to deletion of the highest ranked cell against a given screening criteria to determine the influence the deleted cell has on the network; ordering cells of the group by rank based on the evaluation; and allowing deletion of the highest ranked cell if the network parameter satisfies the screening criteria, else rejecting the deletion of the highest ranked cell. These limitations, in conjunction with all limitations of the independent claim have not been disclosed taught or made obvious over the prior art of record.

As per claim 34, the Applicant teaches, inter alia, evaluating statistics of each cell based on a total number of simplex and softer-handoff legs per cell; ordering cells of the group by rank based on the evaluation, said ordering including ranking the cells in order of lowest number of simplex and softer-handoff legs, the highest ranked cell being the

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cell with the lowest number of simplex and softer-handoff legs; and deleting the highest ranked cell from the network. These limitations, in conjunction with all limitations of the independent claim have not been disclosed taught or made obvious over the prior art of record.

As per claim 35, the Applicant teaches, inter alia, evaluating the statistics of each cell based on a threshold value for the bin data or mobile user data, the evaluating including comparing the bin data or mobile user data for each given cell to the threshold; ordering cells of the group by rank based on the evaluation, said ordering including ranking the cells in order of the degree at which the bin data or mobile user data for a given cell exceeds the threshold, the highest ranked cell being the cell having bin data or mobile user data exceeding the threshold to the highest degree; and deleting the highest ranked cell from the network. These limitations, in conjunction with all limitations of the independent claim have not been disclosed taught or made obvious over the prior art of record.

As per claim 36, the Applicant teaches, inter alia, evaluating statistics of each cell based on said generated statistics to estimate the impact of cell deletion on a population of mobiles or bins in proximity to such cell, and said evaluating including calculating a communication parameter for one or more of the mobiles or bins in proximity to the cell; ordering cells of the group by rank based on the evaluation, said ordering including ranking the cells in order of the lowest adverse effect on a given mobile population or bins in an area, based on the evaluation of the calculated communication parameter; and deleting the highest ranked cell from the network. These

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limitations, in conjunction with all limitations of the independent claim have not been disclosed taught or made obvious over the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean A. Gelin whose telephone number is (571) 272-7842. The examiner can normally be reached on 9:30 AM to 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on (571) 272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JGelin
November 26, 2006

JEAN GELIN
PRIMARY EXAMINER

A handwritten signature in cursive script, reading "Jean Gelin", positioned below the printed name and title.